Network Based Remote Vehicle Control System using Arduino and Android

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Abstract

*In the today advanced world, remote controlled embeddedsystem is one of the biggest demand mainly in disaster recovery, military, home security and etc. The purpose of this design is to provide the prototype of a remotely controllable car with a video streaming feedback. The design of the system consist of **three** main part main controller for robot hardware, webserver for digital video streaming and a client for navigating the robot. This **main control system** has been designed using Arduino as the main controller for motor and to accept the remote control signal and feedback, Bluetooth module is added. In this system, two android smart phones are used as client-server connection over wifi network for video streaming. Server phone is mounted on car and running an emulated IPcamera software to transmit video streaming of the captured view. Another phone connect with Server phone for getting streaming feedback and also connected with Arduino controller via Bluetooth network to send desired control signal.Hence,this system can perform as a low cost, compact design, flexibledevelopment and enhancement for real life scenario.*